

**I CLAIM:**

1. A digital household automation control system, in whose covering area there are electric appliances connecting with a ground line and a live line of an external power source with their switches, comprising:

an input with a transmitting unit for emitting RF signals;

a relay device, including:

an RF relay unit for receiving the RF signals from an input and converts it into differently coded RF signals to said infrared relay unit, and

an infrared relay unit for converting said RF signals into infrared signals in order to control said electric appliances;

a controller disposed on said switch having a receiver, a central processor and a controlling unit controlled by said central processor; wherein, said receiver receives infrared signals from the relay device and sends them to said central processor for comparing and analyzing, and thereby driving said controlling unit to control said controller.

2. A digital household automation control system as claimed in claim 1, wherein said relay transmitter also includes an infrared signal receiving unit and a memory unit connecting to said infrared signal receiving unit;

moreover, said infrared signal receiving unit receives infrared signals and then sends said infrared signals to said memory unit for memorizing.

3. A digital household automation control system as claimed  
5 in claim 1, wherein said input is a remote control.
4. A digital household automation control system as claimed  
in claim 1, wherein said input is a computer.
5. A digital household automation control system as claimed  
in claim 4, wherein said computer connects with a network  
10 adapter to control via the network.
6. A digital household automation control system as claimed  
in claim 1, wherein said input is a mobile communication  
unit for controlling said relay unit.
7. A digital household automation control system as claimed  
15 in claim 1, wherein said input is a detecting actuator,  
and it includes a detecting unit for detecting and  
receiving any change of external environment, a central  
unit for processing the signals from said detecting unit  
and a transmitting unit for emitting said signals to  
20 control said relay device.
8. A digital household automation control system as claimed  
in claim 1, wherein said input is attached with an RF  
relay unit, and said controller is attached with an RF  
signal transmitting unit; moreover, after said controller  
25 is adjusted and switched by the controlling of said RF

signals, said signal transmitting unit will send a feedback and said feedback will be received by said RF relay unit for a user to know the working status of said controller.

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